

Coping Strategies and Fatigue Among Undergraduate Students

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Abstract

This research aims to study and compare the differences of coping strategies and fatigue among undergraduate students. The sample included 345 individuals who were selected using a stratified random technique. Quantitative data was obtained using fatigue and coping strategy questionnaires. Qualitative data was gathered through a focus group method with 12 individuals to explore how they cope with fatigue. Descriptive statistics and One-way ANOVA were used to analyze the data. In terms of qualitative data, interconnected data were classified together in the same category. The findings revealed fatigue among undergraduate students was moderate overall. The students relied mostly on the following coping strategies: problem-focused, avoidance, and seeking information or reference to others, respectively. When the fatigue was compared depending on the students' coping strategies, students who preferred avoidance had levels of fatigue higher than those who preferred seeking information or reference from others, and problem-focused, respectively. Data from focus groups revealed that students dealt with fatigue in a variety of ways, including focusing on the roots of the problem, seeking a mental refuge, consulting a professional when required, taking a break to relax, and avoiding the problems entirely. As a result, practicing positive strategies can help to reduce fatigue and promote well-being.

Keywords: Coping Strategies, Fatigue, Undergraduate Students

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Introduction

University students play a pivotal role in national development, actively engaged in acquiring, applying, and refining their knowledge and skills (Hoidn & Kärkkäinen, 2014). Mental health stands as a critical determinant of effective learning and personal development. The advent of the COVID-19 pandemic, characterized by intermittent disruptions and the emergence of new variants, has led to significant changes in students' lives, demanding considerable adaptability (Ding & Zhang, 2020; Bountress et al., 2022; Gupta et al., 2023). A noteworthy paradigm shift from traditional on-site classes to online learning has become the predominant mode, thereby disrupting the conventional university experience (Maqsood et al., 2021).

As per the 2021 report from the Department of Mental Health, students exhibit heightened stress levels, with 29.29% reporting elevated stress and 16.67% grappling with fatigue or burnout in their academic pursuits. Notably, this stress-to-fatigue ratio among students surpasses that observed in adults with high level and by approximately threefold (Kizhakkeveetil et al., 2017). Maslach and Jackson's seminal work in 1986 categorizes fatigue into three types: 1) Emotional Fatigue, characterized by a sense of exhaustion and an aversion to work or study; 2) Depersonalization, a symptom arising subsequent to emotional fatigue, resulting in a negative attitude towards peers and social associates; 3) Lack of Personal Accomplishment, where individuals perceive falling short of expectations, leading to negative self-evaluation and a perceived deficiency in problem-solving skills. These three types of fatigue markedly hinder students' productivity in both academic and professional domains. As a result, chronic stress emerges as a central precursor to fatigue, potentially giving rise to a range of mental health issues, notably including depression. This report seeks to systematically examine and comprehend the nuanced interconnections between stress, fatigue, and mental health challenges among university students (Mariotti, 2015), specifically in the context of the shifting dynamics brought about by the COVID-19 pandemic, encompassing both the periods of remote and on-site learning (Ding & Zhang, 2020; Prowse et al., 2021; Bountress et al., 2022).

An additional life skill that merits attention for students in mitigating fatigue is the adoption of coping strategies (Klonoff-Cohen, 2022). Lazarus and Folkman (1984a) provide a comprehensive definition of coping strategies, characterizing them as a dynamic process by which individuals endeavor to master or diminish stressors and life challenges. This multifaceted process is expressed through behavioral manifestations encompassing the regulation of thoughts and emotions, ultimately aimed at mitigating stress and addressing prevalent problems. Lazarus and Folkman ((1984a; 1984b) delineate coping strategies into three distinct categories. First, Problem-Focused Coping entails directly confronting stressors, allowing students to methodically break down tasks, set realistic goals, and actively seek solutions to academic or personal challenges. This approach empowers students, fostering a sense of control that has the potential to reduce stress and prevent the onset of fatigue. Secondly, Seeking Support from Others involves reaching out to friends, family, or professionals for emotional reassurance and practical assistance during challenging times. Encouraging students to cultivate a robust support network is integral, fostering a profound sense of connectedness that can effectively alleviate stress. Lastly, Avoidance Coping seeks to minimize exposure to stressors through distraction or deliberate avoidance of anxiety-inducing situations. While providing momentary relief, it is crucial to note that avoidance coping may lack sustainability and could contribute to long-term stress (Sirois, 2023). Understanding the nuances of these coping strategies is imperative for guiding students

toward more adaptive alternatives, steering them away from less effective coping mechanisms, and nurturing their overall well-being (Erschens et al., 2018; Van der Walt et al., 2019).

The impartation of life skills, coupled with an education on effective coping strategies, holds profound significance for students (Townsend, 2014; Alborzkouh et al., 2015). Advising students to employ strategies such as problem-solving or seeking professional support is crucial, surpassing the approach of allowing them to grapple with challenges and potential exhaustion through self-devised, inappropriate, or ineffective strategies (de Wit & Deca, 2020). Recognizing this, the researchers posit a hypothesis that undergraduate students, in their diverse academic and personal contexts, employ coping strategies to navigate and alleviate fatigue.

To comprehensively investigate this hypothesis, quantitative data collection was employed through the utilization of a focus group method. This methodological choice ensures a more nuanced understanding of how coping strategies are practically applied by students in real-world scenarios, offering valuable insights into the dynamic interplay between coping strategies and the experience of fatigue among undergraduate students. In essence, this research seeks to contribute to the broader discourse on student well-being, shedding light on the efficacy of coping mechanisms in the face of academic and personal challenges, particularly within the context of the evolving landscape brought about by the COVID-19 pandemic.

With the objective of understanding how students navigate challenges using various coping strategies, this research aims to create a model for mental health development specifically designed for Chiang Mai University students. Furthermore, it endeavors to develop a proactive plan to aid students in dealing with fatigue, promoting their adaptation and effective problem resolution. The study is closely aligned with the field of counseling psychology within the university setting, underscoring the notion that prevention is more advantageous than an exclusive focus on treatment.

Methods

Procedure

This study enrolled undergraduate students from Chiang Mai University who met the following criteria: undergraduate status, aged between 18 and 25 years old, proficient in reading, listening, and writing. Participants were required to be willing and independent in their participation in the research.

Participants

For Study 1, a sample size of 345 individuals was determined using the G*Power program. Study 2 comprised a Focus Group consisting of 12 participants. Qualitative data were collected from volunteers recruited through online public relations channels.

Measures

Study 1: Quantitative Methodology

In the quantitative phase, the Checklist Individual Strength Questionnaire (CIS), adapted from Worm–Smeitinka et al. (2017), was utilized. Additionally, a Fatigue Scale was developed based on the conceptual framework proposed by Maslach and Jackson (1986a),

encompassing four dimensions: Subjective Fatigue, Reduction in Activity, Reduction in Concentration, Reduction in Motivation. Each dimension comprises 17 items, and the overall reliability, assessed by Cronbach's alpha, stands at a commendable level of .894.

Study 2: Qualitative Methodology (Focus Group)

Study 2, a Focus Group methodology was employed. Group discussions were conducted to comprehensively explore and understand how students utilize coping mechanisms to address both problems and fatigue.

Statistical Analysis

Descriptive statistics summarized general data, while group differences were assessed with One-Way ANOVA and Scheffe method for pairwise comparisons. Focus group outcomes were carefully analyzed through content categorization.

Results

Study 1

In the study sample, the majority identified as female, comprising 272 individuals (78.8%). Among them, 213 students (61.7%) reported moderate fatigue, while 99 students (28.6%) reported high fatigue (Table 1). Problem-focused coping was the most common, with 155 individuals (44.9%) using this approach. Additionally, 113 students (32.8%) employed avoidance coping, while 77 students (22.38%) sought reference from others (Table 2).

Table 1. Number and percentage of students categorized based on their level of fatigue

Levels of Fatigue	<i>n</i>	%
Low	33	9.5
Moderate	213	61.7
High	99	28.6

Table 2. Number and percentage distribution across coping methods

Coping Strategies	<i>n</i>	%
Problem-focused	155	44.9
Seeking reference from others	77	22.3
Avoidance	113	32.8

Table 3. Displays the minimum, maximum, mean, and standard deviation differences between the utilization of coping strategies and levels of fatigue

Coping strategies	Fatigue			
	Min	Max	Mean	S.D.
Problem-focused	1.00	5.82	3.90	.910
Reference to others	1.59	6.47	4.24	.922
Avoidance	3.71	6.94	5.24	.676

According to Table 3 indicates that students who favored avoidance coping exhibited higher levels of fatigue compared to those who preferred seeking reference to others and problem-focused coping strategies.

The Levene test confirmed a significant correlation in standard deviation, supporting the hypothesis. One-Way ANOVA analysis revealed differing levels of fatigue among students employing different coping strategies, significant at the 0.05 level. Post hoc analysis with the Scheffe method identified differences in coping strategies between each pair.

Table 4. The pairwise comparison of students' fatigue levels using the Scheffe method

Coping strategies		Problem-focused	Reference to others	Avoidance
	$\bar{x}$	3.907	4.240	5.245
Problem-focused	3.907	-	-0.333*	-1.338*
Reference to others	4.240	-	-	-1.004*
Avoidance	5.245	-	-	-

Note, * $P < .05$

According to Table 4 reveals significant differences in fatigue levels among students utilizing different coping strategies at a significance level of 0.05. Specifically, the following pairs demonstrated notable distinctions:

- 1) Problem-focused coping versus reference to others: Students employing problem-focused coping exhibited lower levels of fatigue.
- 2) Problem-focused coping versus avoidance: Students utilizing problem-focused coping reported lower fatigue levels.
- 3) Reference to others versus avoidance: Students who opted for reference to others coping experienced lower levels of fatigue.

Study 2

Study 2 involved analyzing data from group discussions, drawing insights from a sample of 12 undergraduate students. Five distinct coping methods for managing fatigue emerged during the categorization process:

Focusing on the Roots of the Problem

Example from a male second-year student: "Today, I have to finish my work or homework with my best effort as quickly as possible. So that I can use the rest of my time to do other things, such as watching a series. I have to finish it step by step."

The strategy of "Focusing on the Roots of the Problem" involves addressing the underlying causes of fatigue by prioritizing tasks and allocating time efficiently. Students who adopt this approach emphasize completing their academic responsibilities promptly so they can engage in other activities, such as leisure or relaxation.

Seeking a Mental Refuge

Example from a female first-year student: "I am a nature-loving person. When I feel very stressed, I will go for a ride or get away from people and the social world. I will go out and appreciate nature. Nature helps the best."

This coping method highlights the importance of finding solace in nature or solitary activities to alleviate stress and recharge. Engaging with nature or engaging in solitary activities provides students with a mental escape from the pressures of academic life.

Consulting a Professional When Required

Example from a female second-year student: "I use a consultant from the mental health center 2 of the Faculty of Humanities. They will listen to my problems and help me find ways to deal with it. Finally, I found the most effective way is just taking my time, such as bathing or cooking. This made me feel happier. Moreover, I currently have adopted a cat as well. It helps a lot."

This coping method stresses seeking professional support, like counseling, for mental health concerns and effective coping strategies. Engaging in self-care activities, such as spending time with pets, can also boost well-being.

Taking a Break to Relax

Example from a male second-year student: "So far, when I'm tired from studying, I will go to sleep. I try not to do too much. I don't go out or do exercise. I try to do things as little as possible to make me feel empowered to read books and do homework, something like this."

This coping method underscores the importance of self-care and rest to replenish energy levels and combat fatigue. Students recognize the importance of prioritizing relaxation and sleep to maintain their academic performance and overall well-being.

Avoiding the Problems

Example from a female third-year student: "I will eat and eat. Eating makes me happy. I gained 10 kilograms in a year. It affects me a lot because I am a person who is quite concerned about my body shape. When I gain weight, I'm stressed, but I know that eating is not good. Other than that, I will go out and hang out with friends. Sometimes I leave the dormitory at midnight to go for a ride and come back at 3 AM. Something like this."

This coping strategy involves maladaptive behaviors like overeating or excessive socializing to escape stressors. While offering temporary relief, these actions can harm students' physical and mental health over time.

These coping strategies emphasize the complexity of fatigue management among undergraduates. Educators and mental health professionals can better support students by recognizing and understanding their diverse coping methods, aiding them in managing academic challenges and promoting overall well-being.

Discussion

The discussion delves into the complex interplay among fatigue, academic stress, and mental health among university students, drawing insights from various studies. Research underscores the significance of inadequate rest or sleep, particularly during demanding periods like exams (Bouloukaki et al., 2023), as a primary contributor to student fatigue. This highlights the critical role of lifestyle factors in students' well-being, emphasizing that insufficient sleep can result in exhaustion and hindered learning efficiency. Moreover, insomnia is often intertwined with mental health issues, which can both stem from and worsen due to a variety of factors. Additionally, Kizhakkeveetil et al. (2017) contribute to

this understanding, revealing the implications of stress and fatigue on work performance, commitment, and life satisfaction among students. Fares et al. (2016) expand on the implications of stress and fatigue, revealing a complex interplay with work performance, commitment, and life satisfaction. The research suggests that heightened stress and fatigue levels are not isolated issues; instead, they are intertwined with broader aspects of students' lives, influencing their overall satisfaction and mental well-being. The study also highlights concerning outcomes, such as the emergence of thoughts about taking breaks from studying and even suicidal ideation, emphasizing the gravity of unaddressed fatigue. Coping strategies play a crucial role in mitigating the impact of fatigue on students' mental health. The quantitative phase of our study, utilizing the Checklist Individual Strength Questionnaire (CIS) and a developed Fatigue Scale, identified distinct coping patterns among students. Problem-focused and reference to others coping emerged as effective strategies, associated with lower levels of fatigue compared to avoidance coping. This aligns with the findings of Al Dubaie et al. (2011) and Shaikh et al. (2004), indicating that avoidance coping is linked to higher fatigue levels. In addition to coping strategies, interventions aimed at addressing fatigue and its associated stressors are essential in promoting students' mental health and academic success (Zapata-Ospina et al., 2021). Implementing campus-wide initiatives such as stress management workshops, mindfulness programs, promote social interaction, and promoting a culture of work-life balance can provide students with valuable tools and resources to cope with academic stressors effectively (Ding & Zhang, 2020; Sahu, 2020). Moreover, integrating mental health support services into university campuses, including counseling and therapy options, can ensure that students have access to professional assistance when needed (Osborn et al., 2022).

The qualitative insights from the focus group discussions further enriched our understanding of coping mechanisms. Five distinct coping strategies emerged: focusing on the roots of the problem, seeking a mental refuge, consulting a professional when required, taking a break to relax, and avoiding the problems. These strategies were discussed by students from various academic years, providing a holistic view of the coping landscape. The importance of seeking professional support, as highlighted by a second-year female student in our focus group, aligns with the research by Erschens et al. (2019). This study emphasizes the prevalence of professional burnout among medical students and the positive impact of seeking guidance from mental health professionals. However, it's essential to note that coping strategies are context-dependent, and their effectiveness may vary among individuals. The discussion group revealed that students employ diverse coping mechanisms based on their unique preferences and circumstances. While problem-focused coping was beneficial for some, others found solace in seeking a mental refuge or taking a break to relax. The discussion also acknowledges the challenges faced by students, particularly in their first year, adapting to new academic environments and managing various activities. The experiences shared by a fourth-year male student underscore the need for support mechanisms during significant transitions, emphasizing the role of counseling services in facilitating students' adjustment. Brooke et al. (2020) add a temporal dimension to the discussion, focusing on first-year students' experiences. The challenges faced by these students, including adapting to university life, navigating new social circles, and adjusting to a different learning system, contribute significantly to elevated fatigue levels. The firsthand account from a fourth-year student in the discussion group underscores the emotional toll of these challenges, illustrating the struggle to balance academic and social aspects of university life. The student's statement encapsulates the emotional turmoil experienced during the transition from high school to university. "I was very tired from many adaptations in the first year in the university. Sometimes, there were too many activities. I had to meet lots of new people and had to adapt

to the learning system as well. This was very different from high school. No one can adjust to the changes in a short time. At that time I was worried that if I did not do activities with my friends in the faculty or university, I will not know them, and I will not get into a new society. That made me feel very tired. Between Year 1 and Year 2, I started to feel I could not control anything, and in the end, I decided to see the consultant." The narrative reflects the emotional toll of these challenges, illustrating the struggle to balance academic and social aspects of university life (Auerbach et al., 2018). The pressure to engage in numerous social activities for the sake of social integration, combined with the fear of missing out on important social connections, exacerbated fatigue levels, and impact psychiatric outcomes particularly during the COVID-19 pandemic (Bountress et al., 2022). Additionally, the shift to remote learning and social interactions further contributed to heightened feelings of exhaustion and overwhelm among students (Zapata-Ospina et al., 2021; Ding & Zhang, 2020). The revelation that seeking a consultant became a coping strategy highlights the pivotal role of mental health support services in addressing the multifaceted challenges faced by students. In essence, the discussion underscores the interconnected nature of fatigue, stress, and mental health in the university context. It highlights the crucial need for holistic interventions, spanning lifestyle adjustments to robust mental health support systems, to empower students in navigating their academic journey while prioritizing their well-being. This is especially critical for mitigating against unpredictable issues such as self-harm or suicide (Mortier et al., 2018a; Mortier et al., 2018b), which unfortunately occur more frequently among students compared to non-students, especially given the intermittent nature of the COVID-19 situation (Knapstad et al., 2021; Ding & Zhang, 2020).

Conclusion

While a majority of students reported experiencing moderate levels of fatigue, a concerning 28.6% indicated high levels of fatigue. Our findings suggest that students employing problem-focused and reference to others coping mechanisms exhibit lower levels of fatigue compared to those who prefer avoidance strategies. Hence, it is imperative to educate students on effective coping strategies and ensure access to counseling psychologists to support them in managing fatigue effectively.

Furthermore, fostering a supportive and inclusive learning environment where students feel comfortable discussing their challenges and seeking help can reduce stigma surrounding mental health issues and encourage early intervention. Collaboration between faculty, administration, and mental health professionals is crucial in developing comprehensive strategies to address fatigue and promote students' overall well-being.

By adopting a holistic approach to student well-being and incorporating evidence-based interventions, universities can create environments that support students in managing academic stressors and thriving academically and personally. This proactive approach not only benefits individual students but also contributes to the overall health and success of the university community.

Future research endeavors should delve deeper into context-specific factors to facilitate more meaningful comparisons and the formulation of tailored prevention strategies. By addressing the multifaceted nature of fatigue among university students, we can better equip them with the tools and support needed to navigate their academic journey while safeguarding their well-being.

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